NL INDUSTRIES/TARACORP SUPERFUND SITE GROUP

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November 19, 2019

By Electronic Mail and First Class Mail

Ms. Sheri L. Bianchin Remedial Project Manager Institutional Controls Coordinator U.S. Environmental Protection Agency Region 5 77 West Jackson Boulevard (SR-6J) Chicago, IL 60604

Re: NL Industries/Taracorp Superfund Site; Granite City, Illinois Second 2019 Semi-Annual Operation and Maintenance Inspection (November 2019)

Dear Ms. Bianchin:

On behalf of the NL Industries/Taracorp Superfund Site Group (Group), enclosed are copies of the log sheets, aerial photographs, and reproductions of ground-level photographs documenting the results from the second 2019 semi-annual operation and maintenance inspection performed on November 12, 2019 at the NL Industries/Taracorp Superfund Site in Granite City, Illinois. As shown on the photographs, the ground surface and roadways were covered or partially covered with snow at the time of the inspection.

The results of the inspection are summarized as follows:

- At Slough Road (shown on Figure 1 and the photographs in Attachment 1), no disturbance of the gravel cover to the previously paved area was observed. Also, I met with Mr. Earl Boyd, Terminal Manager for Beelman River Terminals, Inc. (Beelman), who confirmed that there has been no disturbance to the paved surface of Slough Road (which is no longer visible) since the time the paved roadway was covered with soil/gravel fill as part of the expansion of Beelman's operations.
- The paved portion of Watson Alley in Eagle Park Acres (shown on Figure 2 and the photographs in Attachment 2) was inspected. Although Watson Alley was snow covered, no disturbance to the paved surface of the alley was evident.
- During the inspection in Eagle Park Acres, the vacant lot on Harrison Street (adjacent to the unpaved portion of Watson Alley, which was recently cleared of vegetation and where battery case chips were previously observed) was snow covered. However, no evidence of soil disturbance was observed.

- Two remote fill properties Non-Responsive in Eagle Park Acres (Figure 3) that were previously remediated by EPA (and where lead-impacted soil and/or battery case chips may remain in place at a depth of three feet below the ground surface) were observed during the inspection. Although the lawn areas were snow covered, no evidence of subsurface soil disturbance was observed.
- Alleys in Venice that were paved during remedial activities were partially covered with snow but noted to be in generally good condition. The Venice alleys are shown on Figure 1 and are identified on the photographs in Attachment 4. Some small asphalt patches were observed, confirming that the local municipality is continuing to repair and repave alleys, as necessary.
- Observations of the Taracorp pile cap and 1555 State Street property (Figure 4) are shown on the photographs provided in Attachment 5. No problems impacting the effectiveness of the Taracorp pile cap, the concrete surface water drainage channel around the Taracorp pile, or the stormwater discharge system were observed during the inspection. The following activities have been initiated in response to the observations during the inspection of the Taracorp pile and 1555 State Street property:
 - The Group has requested that its lawn maintenance contractor, Munie Greencare Professionals, cut and remove several bushes along the sidewalk and remove some vegetation from the fence along State Street (Attachment 5, photographs 72-76 and 79).
 - The Group has notified the owner/operator of All Pallet Services, one of the companies that operates on the neighboring property, and has requested that All Pallet Services repair a bent section of fence and a separated fence post (Attachment 5, photographs 40-42).
- As shown on the photographs in Attachment 6, no evidence of disturbance of the soil cover or asphalt roadway was observed at Schaeffer Road (a remote fill property remediated by EPA). Several scattered battery case chips were previously observed on the ground surface near a sanitary sewer manhole located near the western end of Schaeffer Road at the approximate location on Figure 5; however, this area was snow covered at the time of the inspection.
- At Sand Road (also a remote fill property remediated by EPA), some scattered battery case chips have been previously observed on the ground surface within the foundation area of a former building on the property (Attachment 7, photograph 9). Although this area was snow covered at the time of the inspection, no evidence of disturbance of the soil cover was observed.

Mr. Sheri Bianchin November 19, 2019 Page 3

Please let me know if you have questions or if additional information or clarification is needed at this time.

Very truly yours,

LEED ENVIRONMENTAL, INC.

Jeffrey A. Deed Project Coordinator

attachments

cc: Mr. Brian Conrath / Mr. Tom Miller – Illinois Environmental Protection Agency (w/attachments, by electronic mail)
Technical Committee, NL Industries/Taracorp Superfund Site Group (w/attachments, by electronic mail)

Inspection Date: 11/12/2019

Weather: Sunny / Partly Cloudy, 13°F - 20°F

Site Structure	Inspected	Problem(s) Identified	Inspection Observations	Maintenance Work		
	(yes/no)	(yes/no)	•	Performed or Required		
PAVED ALLEYS	PAVED ALLEYS					
Slough Road						
Evidence of broken or deteriorated asphalt	Yes	No				
Visual evidence of hard rubber battery case chips	Yes	No	Snow covered in areas.			
Indicate location and extent						
Comments			See Note 1.			
Eagle Park Acres (Watson Alley)						
Evidence of disturbance to paved surface of Watson Alley	Yes	No				
Visual evidence of hard rubber battery case chips	Yes	No	Snow covered in areas.			
Indicate location and extent						
Comments			See Note 2.			
Venice Alleys						
Evidence of broken or deteriorated asphalt	Yes	No				
Visual evidence of hard rubber battery case chips	Yes	No	Snow covered in areas.			
Indicate location and extent						
Comments			See Note 3.			

Notes/Observations:

Inspector's Name/Company: Jeff Leed, Leed Environmental, Inc.

- 1. At Slough Road (Figure 1) and as shown on the photographs in Attachment 1, Mr. Earl Boyd, Terminal Manager for Beelman River Terminals, Inc., confirmed that there has been no disturbance to the paved surface of Slough Road (which is no longer visible) since the time it was covered with soil fill.
- 2. The paved portion of Watson Alley in Eagle Park Acres (as shown on Figure 2 and the photographs in Attachment 2) was inspected and noted to be in good condition.
- 3. Alleys in Venice that were paved during remedial activities were inspected and noted to be in generally good condition. Some small asphalt patches were observed. The Venice alleys are shown on Figure 1 and are identified on the photographs in Attachment 4.

Inspection Date: 11/12/2019

Inspector's Name/Company: Jeff Leed, Leed Environment	Weather: Sunny / Partly Cloudy, 13°F - 20°F			
Site Structure	Inspected (yes/no)	Problem(s) Identified (yes/no)	Inspection Observations	Maintenance Work
REMOTE FILL PROPERTIES - EAGLE PARK ACRES				
Non-Responsive			-	
Evidence of settlement, erosion, deterioration, or excavation	Yes	No		
Visual evidence of hard rubber battery case chips (if excavation or other disturbance of soil cover is observed)	Yes (drive-by)	No	Lawn area was snow covered.	
Indicate location and extent	1	-		
Comments		P	See Note 4.	JF
Non-Responsive				9
Evidence of settlement, erosion, deterioration, or excavation	Yes	No		
Visual evidence of hard rubber battery case chips (if excavation or other disturbance of soil cover is observed)	Yes (drive-by)	47.00	Lawn area was snow covered.	
Indicate location and extent	Land of	144	is a second of	
Comments			See Note 4.	[X

Notes/Observations:

^{4.} Two remote fill properties (Non-Responsive in Eagle Park Acres (Figure 3) that were previously remediated by EPA (and where lead-impacted soil and/or battery case chips may remain in place at a depth of 3 feet below ground surface) were observed during the inspection. As shown on the photographs in Attachment 3, the properties are vacant, vegetated (but snow covered at the time of the inspection), and no evidence of subsurface soil disturbance was observed.

Inspection Date: 11/12/2019
Inspector's Name/Company: Jeff Leed, Leed Environmental, Inc.
Weather: Sunny / Partly Cloudy, 13°F - 20°F

Inspector's Name/Company: Jeff Leed, Leed Env	nspector's Name/Company: Jeff Leed, Leed Environmental, Inc. Weather: Sunny/Partly Cloudy, 13 F - 20 F							
Site Structure	Inspected (yes/no)	Problem(s) Identified (ves/no)	Inspection Observations	Maintenance Work Performed or Required				
TARACORP PILE PROPERTIES (TARACORP			555 STATE STREET PROPERTY)	1 Citot incu of Acquireu				
Security Fence - Condition								
Gates/locks secure and operative	Yes	No						
Evidence of rust, cuts, deterioration, or other damage	Yes	Yes	A bent section of fence and separated fence post (Attachment 5, photographs 40-42) was observed.	The Group requested that All Pallet Services address these items.				
Evidence of unauthorized entry	Yes	No						
Burrowing or tunneling under fence	Yes	No						
Damaged barbed wire	Yes	No						
Comments			No evidence of unauthorized entry.					
Security Fence - Warning Signs		•						
Evidence of rust, cuts, deterioration, or other damage	Yes	No						
Evidence of tampering	Yes	No						
Securely affixed to fence	Yes	No						
Signs legible	Yes	No						
Comments								
Access Road								
Evidence of settlement or deterioration	Yes	No						
Comments			No access road problems.					
Taracorp Pile - Vegetation								
Adequate growth of vegetation	Yes	No						
Adequate diversity of vegetation	Yes	No						
Evidence of stress	Yes	No	Vegetation evident but snow covered.					
Presence of trees, shrubs, woody bushes	Yes	No	No trees, shrubs, etc. observed.					
Need for mowing/maintenance	Yes	No						
Comments			The Group's contractor, Munie Greencare Professionals (Munie), cut the vegetation on the flat parts of 1555 State Street property and the Taracorp pile cap during the week of November 4, 2019.	Following the inspection, the Group requested that Munie cut and remove several small bushes and remove vegetation from a short section of fence along State Street (Attachment 5, photographs 72-76 and 79).				
Taracorp Pile - Erosion								
Evidence of erosion	Yes	No						
Indicate areal extent and location								
Comments			No erosion evident.					
Taracorp Pile - Settlement								
Evidence of settlement	Yes	No						
Indicate areal extent and location								
Comments			No settlement evident. Surface snow covered.					

Inspection Date: 11/12/2019

Inspector's Name/Company: Jeff Leed, Leed Environmental, Inc. Weather: Sunny / Partly Cloudy, 13°F - 20°F Inspected Maintenance Work Site Structure Identified **Inspection Observations** Performed or Required (yes/no) (yes/no) TARACORP PILE PROPERTIES (TARACORP PROPERTY AND 1555 STATE STREET PROPERTY) Taracorp Pile - Cracks Evidence of cracks Yes No Indicate areal extent and location ---No cracks evident. Surface snow covered. Comments Taracorp Pile - Ponding Yes No Evidence of ponding Indicate areal extent and location Comments No ponding evident. Surface snow covered. Taracorp Pile - Bulges Evidence of bulges Yes No Indicate areal extent and location ------Comments No bulges evident. Surface snow covered. Taracorp Pile - Seeps Yes Evidence of seepage (leachate) No Indicate areal extent and location ---Comments No evidence of seepage observed. Surface snow covered. Taracorp Pile - Slope Stability Evidence of sliding Yes No Indicate areal extent and location Comments No sliding evident, Surface snow covered. Taracorp Pile - Leachate Management System Riser pipe - evidence of deterioration Yes No No Riser pipe - locked Yes Leachate levels in sump No Comments No problems identified. Leachate level checked during five-year review site work. Concrete Drainage Channel Around Taracorp Pile Evidence of cracks or other deterioration Yes Yes Some cracks observed in concrete drainage channel (probably from mowing). No evidence of adverse impacts to surface water drainage. Evidence of obstructions Yes No Yes No Evidence of erosion Yes Evidence of improper drainage No Comments **Retention Basin for Stormwater Runoff** Adequate vegetation Yes No Evidence of erosion or deterioration Yes No Appropriate drainage to storm sewer Yes No Comments No problems with retention basin evident. Surface snow covered. Concrete Sidewalk (1555 State Street Property) Evidence of cracks or other deterioration Yes No

Concrete sidewalk is in good condition; no problems identified. Sidewalk was

partially snow covered.

Comments

Inspector's Name/Company: Jeff Leed, Leed Environmental, Inc.

Inspection Date: 11/12/2019

Weather: Sunny / Partly Cloudy, 13°F - 20°F

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Site Structure	Inspected (yes/no)	Problem(s) Identified (yes/no)	Inspection Observations	Maintenance Work		
OTHER REMOTE FILL PROPERTIES						
Schaeffer Road						
Evidence of settlement, erosion, deterioration, or excavation	Yes	No				
Visual evidence of hard rubber battery case chips (if excavation or other disturbance of soil cover is observed)	Yes	Yes	See Note 5.			
Indicate location and extent						
Comments			See Note 5.			
Sand Road						
Evidence of settlement, erosion, deterioration, or excavation	Yes	No				
Visual evidence of hard rubber battery case chips (if excavation or other disturbance of soil cover is observed)	Yes	Yes	See Note 5.			
Indicate location and extent						
Comments			See Note 5.			

Notes/Observations:

5. Remote fill properties (Schaeffer Road and Sand Road) previously remediated by EPA (and where lead-impacted soil and/or battery case chips may remain in place at a depth of three feet below ground surface) were observed during the inspection. Photographs are provided in Attachment 6 and Attachment 7, respectively. At Schaeffer Road, several scattered battery case chips were previously observed on the soil surface near the sanitary sewer manhole near the west end of Schaeffer Road at the approximate location shown on Figure 5. Scattered battery case chips and some other debris (bricks, etc.) were previously observed near the foundation area of the former building at the Sand Road property shown on Figure 6. Although these areas were snow covered at the time of the inspection, no soil disturbance was observed.



Walson Alley

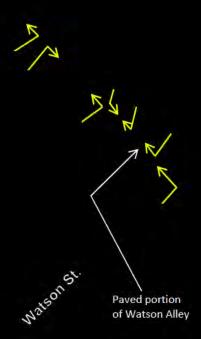


Figure 2
Eagle Park Acres – Watson Alley

Watson Alley photograph locations (photographs provided in Attachment 2).

Non-Responsive

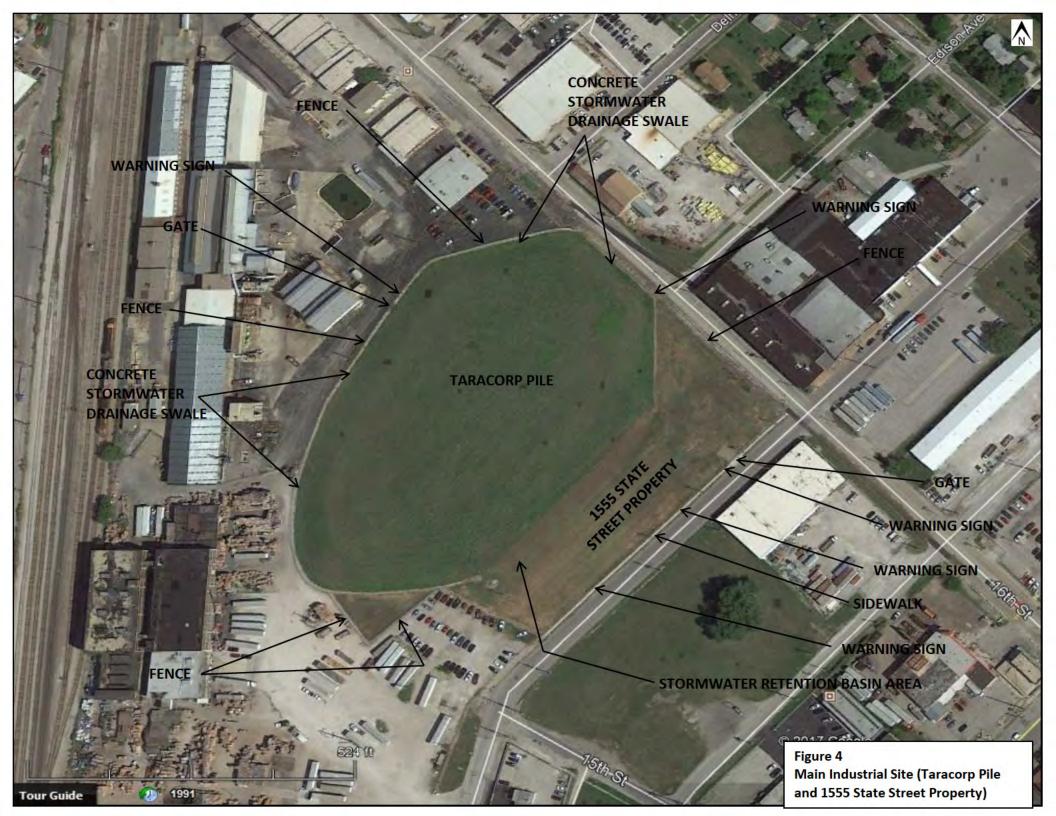




Figure 5 Schaeffer Road



Attachment 1 Slough Road Photographs November 12, 2019



Photograph 1: Beelman storage area/warehouse (view along Bremen Street).



Photograph 2: Fence/gate (view from Bremen Street).



Photograph 3: Beelman storage area/warehouse (view along Bremen Street).



Photograph 4: Beelman storage area/warehouse.



Photograph 5: Beelman storage area/warehouse.



Photograph 6: Slough Road, inside fence (along Bremen Street).

Attachment 1 Slough Road Photographs November 12, 2019



Photograph 7: Slough Road, inside fence (along Bremen Photograph 8: Slough Road, concrete debris. Street).





Photograph 9: Slough Road, inside fence (along Bremen Photograph 10: Slough Road, concrete debris. Street).





Photograph 11: Slough Road, foundation of former Robin's Nest Lounge.



Photograph 12: Slough Road, soil pile near foundation of former Robin's Nest Lounge.

















Photograph 1: Entrance to 1555 State Street property along State Street.



Photograph 2: Entrance to 1555 State Street property along State Street.



Photograph 3: Warning sign at front gate along State Street.



Photograph 4: Concrete drainage swale, east side of Taracorp pile (view north).



Photograph 5: End of concrete drainage of swale, east side of Taracorp pile.



Photograph 6: Concrete drainage swale, east side of Taracorp pile (view north).



Photograph 7: Concrete drainage swale, east side of Taracorp pile (view north).



Photograph 8: Concrete drainage swale, east side of Taracorp pile (view north).



Photograph 9: Concrete drainage swale, north side of Taracorp pile (view southeast).



Photograph 10: Concrete drainage swale, fence, and vegetation; north side of Taracorp pile along 16th Street (view northwest).



Photograph 11: Concrete drainage swale, fence, and vegetation; north side of Taracorp pile along 16th Street (view northwest).



Photograph 12: Concrete drainage swale, fence, and vegetation; north side of Taracorp pile along 16th Street (view northwest).



Photograph 13: Concrete drainage swale and vegetation; northwestern side of Taracorp pile (view northeast).



Photograph 14: Vegetation, northwestern side of Taracorp pile cap (view southwest).



Photograph 15: Concrete drainage swale, fence, and vegetation along northwestern side of Taracorp pile (view southwest).



Photograph 16: Concrete drainage swale, crack in concrete along northwestern side of Taracorp pile.



Photograph 17: Concrete drainage swale, fence, and vegetation along northwestern side of Taracorp pile (view southwest).



Photograph 18: Concrete drainage swale, fence, and vegetation along northwestern side of Taracorp pile (view southwest).



Photograph 19: Concrete drainage swale, vegetation along northwestern side of Taracorp pile (view north/northeast).



Photograph 20: Fence, warning sign, western side of Taracorp pile.



Photograph 21: Fence, warning sign, western side of Taracorp pile.



Photograph 22: Fence, warning sign, western side of Taracorp pile.



Photograph 23: Vegetation near base of western side of Taracorp pile (view north).



Photograph 24: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view north).



Photograph 25: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view south).



Photograph 26: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view south).



Photograph 27: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view north).



Photograph 28: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view south).



Photograph 29: Concrete drainage swale, western side of Taracorp pile (view north).



Photograph 30: Concrete drainage swale and vegetation near base of western side of Taracorp pile (view south).



Photograph 31: Fence and concrete drainage swale, southwestern side of Taracorp pile cap (view north).



Photograph 32: Fence and concrete drainage swale, southwestern side of Taracorp pile cap (view south).



Photograph 33: Fence and concrete drainage swale, southwestern side of Taracorp pile cap (view south).



Photograph 34: Fence and concrete drainage swale, southwestern side of Taracorp pile cap (view north).



Photograph 35: Fence and concrete drainage swale, southwestern side of Taracorp pile cap (view north).



Photograph 36: Fence and concrete drainage swale, southwestern side of Taracorp pile cap (view east).



Photograph 37: Fence and concrete drainage swale, southwestern side of Taracorp pile cap (view east).



Photograph 38: Fence and concrete drainage swale, southwestern side of Taracorp pile cap (view west).



Photograph 39: Fence and concrete drainage swale, southwestern side of Taracorp pile cap (view east).



Photograph 40: Broken fence pole (material staging on State Street Warehouse property).



Photograph 41: Broken fence pole (material staging on State Street Warehouse property).



Photograph 42: Broken fence pole (material staging on State Street Warehouse property).



Photograph 43: Bent fence and broken barbed wire (material staging on State Street Warehouse property).



Photograph 44: Fence (parking area on State Street Warehouse property).



Photograph 45: Vegetation and concrete drainage swale along southern slope of Taracorp pile cap.



Photograph 46: Vegetation and concrete drainage swale along southern slope of Taracorp pile cap.



Photograph 47: Concrete drainage swale along southern slope of Taracorp pile.



Photograph 48: Concrete drainage swale along southern slope of Taracorp pile.



Photograph 49: Southern side of Taracorp pile, stormwater outlet.



Photograph 50: Stormwater outlet.



Photograph 51: Stormwater outlet.



Photograph 52: Stormwater outlet and stormwater retention basin (view northeast).



Photograph 53: Stormwater manhole.



Photograph 54: Stormwater manhole near fence.



Photograph 55: Vegetation and fence near former Rich Oil facility (view toward State Street).



Photograph 56: Vegetation, eastern side of Taracorp pile cap.



Photograph 57: Leachate riser pipe.



Photograph 58: Locked lid on leachate riser pipe (locked lid installed fall 2007).



Photograph 59: Vegetation, top of Taracorp pile (view northeast).



Photograph 60: Vegetation, top of Taracorp pile (view northwest).



Photograph 61: Vegetation, former BV&G Truck Service area.



Photograph 62: Older and newer fence near former BV&G Truck Service buildings and along railroad tracks (view northeast).



Photograph 63: Older and newer fence near former BV&G Truck Service buildings and along railroad tracks (view northwest).



Photograph 64: Inside fence, corner of State Street and 16th Street.



Photograph 65: Inside fence, corner of State Street and 16th Street.



Photograph 66: Inside fence, gate along State Street.



Photograph 67: Lock on State Street gate.



Photograph 68: Concrete entranceway gate near 16th Street and State Street.



Photograph 69: Fence, warning sign, grass, and sidewalk along State Street.



Photograph 70: Fence and sidewalk along State Street.



Photograph 71: Fence, grass, utility pole, and sidewalk along State Street.



Photograph 72: Warning sign along State Street.



Photograph 73: Warning sign along State Street.



Photograph 74: Sidewalk along State Street.



Photograph 75: Vegetation along State Street sidewalk.



Photograph 76: Vegetation along State Street sidewalk.



Photograph 77: Sidewalk along State Street.



Photograph 78: Southern end of concrete sidewalk on 1555 State Street property (adjacent to former Rich Oil property).



Photograph 79: Vegetation on fence along State Street.



Photograph 80: Fence, grass, and sidewalk along State Street.



Photograph 81: Utility pole near intersection of 16th Street and State Street.



Photograph 82: End of sidewalk along railroad tracks.



Photograph 83: End of sidewalk along railroad tracks.



Photograph 84: End of sidewalk along railroad tracks.



Photograph 85: End of sidewalk along railroad tracks.



Photograph 86: Gas utilities along railroad tracks.



Photograph 87: Gas utilities along railroad tracks.



Photograph 88: Fence along railroad tracks and 16th Street.



Photograph 89: Warning sign on fence along railroad tracks near 16th Street and Edison Avenue.



Photograph 90: Warning sign on fence along railroad tracks near 16th Street and Edison Avenue.



Photograph 91: Fence and vegetation along railroad tracks and 16th Street.



Photograph 92: Fence and vegetation along railroad tracks and 16th Street.



Photograph 93: Fence and vegetation along railroad tracks and 16th Street.



Photograph 94: Recently constructed bollards around monitoring well MW-105D.

Attachment 6 Schaeffer Road Photographs November 12, 2019



Photograph 1: Schaeffer Road property, entrance.



Photograph 2: Schaeffer Road property, entrance.



Photograph 3: Schaeffer Road property, entrance.



Photograph 4: Schaeffer Road property, entrance.



Photograph 5: Schaeffer Road property, entrance.



Photograph 6: Schaeffer Road property, roadway.

Attachment 6 Schaeffer Road Photographs November 12, 2019



Photograph 7: Schaeffer Road property, roadway.



Photograph 8: Schaeffer Road property, roadway.



Photograph 9: Schaeffer Road property, roadway.



Photograph 10: Schaeffer Road property, roadway.



Photograph 11: Schaeffer Road property, sanitary sewer manhole.



Photograph 12: Schaeffer Road property, sanitary sewer manhole.

Attachment 6 Schaeffer Road Photographs November 12, 2019



Photograph 13: Schaeffer Road property, field.



Photograph 14: Schaeffer Road property, drainage swale.

Attachment 7 Sand Road Photographs November 12, 2019



Photograph 1: Sand Road property (view from entrance). Photograph 2: Sand Road property, concrete foundation.





Photograph 3: Sand Road property, concrete foundation.



Photograph 4: Sand Road property, concrete foundation.



Photograph 5: Sand Road property, concrete foundation. Photograph 6: Sand Road property, drainage swale.



Attachment 7 Sand Road Photographs November 12, 2019



Photograph 7: Sand Road property, view east along Chain of Rocks Road.



Photograph 8: Sand Road property, view east along Chain of Rocks Road.



Photograph 9: Sand Road property, view west along Chain of Rocks Road.